Chapter 11
Russian System of Higher Education and Its Stakeholders: Ten Years on the Way to Congruence

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11.1 Introduction

The university[1], being an institution with almost 1000 years of history, is characterized by a certain organizational inertia and conservatism. At the same time, remaining an open system, it is sensitive to changes occurring around it and has to adapt to them, changing its behavior and the organization of its work. In the context of this permanent process of interaction between the university's internal and external environments, the importance of the factors associated with the existence of the university's major interest groups or stakeholders increases. The university's dynamics of change begin to be seen as part of the larger transformation of the relationships among society's key institutions (Olsen 2007). As Jongbloed et al. (2008) have stated, "(I)n order to secure their place in the modern knowledge-based economy, universities everywhere are being forced to carefully reconsider their role and their relations with various constituencies, stakeholders, or communities."

Globalization strengthens interrelations among processes, phenomena, systems, and interest groups, as well as their mutual influence. In this context, the emergence of new stakeholders, such as business, for example, is inevitable. At the same time, in the context of the rapidly changing socioeconomic situation and increasing competition

[1] The term "university" refers to all types of higher education institutions.

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among different generations and the spread of knowledge, the interests and expectations of traditional stakeholders are also changing. In the last decade, the state and students have significantly changed their attitude to the composition and quality of the university's product portfolio and its ability to effectively expand it while maintaining high standards of quality. The competitive environment and the high cost of public resources are changing society's overall attitude to the goals and results of university work. The university's ability (or inability) to effectively respond to new challenges affects the external perception of the university and its assessment by stakeholders.

Significant changes are also taking place in the Russian system of higher education. As in other national contexts, higher education in Russia has become part of the neoliberal agenda. In the modern history of Russian higher education, changes in the attitude of the state to higher education institutions consist of the gradual transition from the funding of state universities to payment for educational services and works ordered by the state. The increasing complexity of the social and economic structure of Russian society also contributes to the emergence of new interest groups, such as employers, social movements, and political organizations. Partly it is the result of the global processes of competition, technological development, and changes in the global political system. Partly it is the result of the government taking responsibility for economic, social, and systemic decisions at the national level. But, one way or another, changes have affected the country, its system of higher education, its universities, as well as the nature and scope of the social contract between higher education and its external environment, comprising different stakeholders.

11.2 Stakeholders' Theory and the Changing Social Contract

Considering the social contract as the basis of interaction between higher education and its external environment, Trow (1996) noted its three key features: market, trust and accountability. Thus, the main range of issues of the social contract can be outlined as follows:

- Who can provide services in the sphere of higher education and what kinds of services?
- What obligations can different bodies assume in terms of the provision of resource support to the university and what models of allocation are used?
- Who evaluates the quality of higher education and how is it done?
- To whom are universities accountable for the use of allocated resources?

We consider below the external environment as a set of stakeholders whose expectations in respect of the aforementioned aspects of the social contract and the associated actions, mechanisms, and patterns of interaction affected the systemic and institutional dynamics of the Russian higher education system in the period from 2000 to 2012.

Stakeholder theory is chosen as a framework for the analysis of the development of the social contract because it emphasizes the importance of the external environ-

ment and its impact on the dynamics of change in the higher education system and universities, along with the concept of new institutionalism (DiMaggio and Powell 1983) and the resource dependence theory (Pfeffer and Salancik 1978). In stakeholder theory, organizational changes are characterized by the organization's ability to establish and maintain relations with its stakeholders (Freeman 1984). We would like to emphasize that we consider stakeholders as contributors of resources of particular types that the university needs to preserve and develop its competitive advantages. The interaction between the university and its stakeholders rotates around resource exchange: the university provides its products and services and the stakeholders provide resources. There can be different types of resources: economic, financial, logistical, intellectual, information, and reputation resources. The nature of the resource exchange is the achievement and implementation of agreements and the mutual satisfaction of interests and expectations. The involvement of stakeholders in the resource exchange gives them authority that enables them to participate in decision making and influencing the university's work. Changes in the composition of the stakeholders and the dynamics of their interests in the resource exchange, force the organization to change its behavior, adjust the trajectory of its development, join new strategic partnerships, and leave alliances that are no longer important. Thus, stakeholders have a decisive influence on the formation of the university's particular position in the academic area and the model of behavior that the university chooses.

The composition of stakeholders in higher education is diverse. Jongbloed et al. (2008) present 12 various stakeholder categories of a higher education institution and examples of specific groups that exert pressure on a higher education institution's actions, behavior, and policies. Examples include the government, the Ministry of Education, students, parents, private and public higher education providers, and industry and professional associations (Jongbloed et al. 2008).

The integration of the interests of various stakeholders into a single whole (something that makes higher education a system) is conducted through a broad spectrum of ways in which the actions of groups interact. Benneworth and Jongbloed (2010) noted that university–stakeholder relations must be considered in the totality of the networks of relations and connections in the higher education system, and not just bilaterally. The triangle of coordination introduced by Clark helps to abstract away from the variety of stakeholders in modern higher education and the ways in which they interact and mark out three groups using different mechanisms of coordination, i.e., influencing or participating in making key decisions: the state authority, the market, and the academic oligarchy (Clark 1983).

Using different mechanisms of coordination, such as legislation, the model of funds allocation, the frame of accountability, the establishment of priorities, the development of demand and supply in the market for educational and research services, changes in the conditions for student choice, competition, the professional assessment of decisions, and initiatives to expand and promote different networks, stakeholder groups initiate and determine the framework within which universities set the path of their institutional development.

Based on this approach, we will consider the interaction between the Russian higher education and its stakeholders in three main spheres: state authority–market; market–academic oligarchy; and state authority–academic oligarchy. In the first sphere,

we will focus on the state's regulatory and supervisory functions in the higher education market. In the second sphere, we will consider universities' entrepreneurship and their behavior in the market, which is based on commercializing research. In the third sphere, we will consider higher education policy, funding models, new forms of accountability, and the professional community's participation in decision making.

11.3 The Role of the State in the Higher Education Market

Experts note that at the beginning of the 2000s, Russian higher education was developing in line with the global trend of mass higher education, in which the main function was the socialization and not professionalization of the youth (Shishkin et al. 2004; Maleva 2007): the cohort of secondary school leavers who could go to college increased from 47% in 2000 to 73.5% in 2010 (Institut statisticheskikh issledovanii i ekonomiki znanii GU-VShE 2012a).

The public's strong demand for higher education of a socializing nature, the weakening of the state control, and the greater autonomy of universities were the drivers of the rapid horizontal expansion of the higher education system and changes in its structure. The quantitative growth of the system, which began in the 1990s (in those years the number of universities increased by 83%, the number of students increased by 44%, and the number of the teaching staff increased by 36%), continued into the next decade. Table 11.1 shows the main indicators of the higher education system in 2000–2010. The quantitative growth of the system as a whole

Table 11.1 Main indicators of the higher education system. (Source: Institut statisticheskikh issledovanii i ekonomiki znanii GU-VShE 2012a)

	2000/2001	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Number of universities, total	965	1068	1090	1108	1134	1114	1115
State universities	607	655	660	658	660	662	653
Nonstate universities	358	413	430	450	474	452	462
Enrolment, total	*4,741,400*	*7,064,600*	*7,309,800*	*7,461,300*	*7,513,100*	*7,418,800*	*7,049,800*
Enrolment, state universities	*4,270,800*	*5,985,300*	*6,133,100*	*6,208,400*	*6,214,800*	*6,135,600*	*5,848,700*
Enrolment, nonstate universities	*470,600*	*1,079,300*	*1,176,800*	*1,252,900*	*1,298,300*	*1,283,300*	*1,201,100*

was promoted by the growth of private sector higher education, which is also part of the trend observed in the majority of countries, in particular those of Central and Eastern Europe (Slantcheva and Levy 2007).

The system of paid higher education expanded: the proportion of students who pay for their education at public and private universities increased from 41% in 2000 to 63% in 2010/2011. Paid education has become one of the main types of university entrepreneurship, today accounting for a third of the universities' total income.

The Russian higher education system of this period was characterized by another global trend—the growing number of students receiving a degree in social sciences, business, and law (Frank and Gebler 2006; Rabossi 2011). In 2010, the number of students who completed their higher education in these fields amounted to 56.3% (the highest figure among Organisation for Economic Cooperation and Development (OECD) countries) of the total number of graduates, while the proportion of graduates in engineering fields reached only 14.7%, and natural sciences and information technology (IT) accounted for only 4.8% (Institut statisticheskikh issledovanii i ekonomiki znanii GU-VShE 2012a).

The mechanisms of market regulation that determined the dynamics of the higher education system at the beginning of the 2000s were based on the expectations and individual needs of young people seeking to receive low-cost education in popular majors. After 2008 these mechanisms began to gradually weaken. An important role was played by changes in the demographic situation, the decline in family income caused by the economic crisis (in 2010 the amount of receipts of the higher education system dropped by 9.8% against 2009), the higher education market began to shrink (Abankina et al. 2012)—along with the population's dissatisfaction with the quality of higher education.

Russian researchers emphasize that the inertia of higher education makes it impossible to rely on the efficiency of its market regulation; the role of the state in the adjustment of demand and the provision of affordable higher education, while maintaining its quality, becomes obvious (Auzan and Bobyleva 2011). The main tools that the state used to regulate the higher education market in that period included: determining the quality framework for higher education providers; regulating demand at the entrance to the system; determining the number of state-funded places at universities and the patterns of their allocation among universities; and regulating tuition fees.

11.3.1 Quality Framework for Higher Education Providers

In compliance with the Russian legislation, higher education is the responsibility of the state. Therefore, the activities of all public universities are regulated and supervised by the state through licensing, attestation, and accreditation. The purpose of these procedures is to ensure the compliance of the contents of the university's programs and the results of training with the national curriculum.

Private universities can grant any degrees without official recognition. But if they want to grant a state-recognized degree or diploma they must undergo the state-mandated procedures of attestation and accreditation. It should be noted that even under these circumstances, private universities retain a certain degree of independence from this stakeholder because after the issuance of the license the state has little leverage to expand the scope of their accountability. For example, the participation of private universities in various monitoring surveys initiated and conducted by the Ministry of Education and Science is voluntary (for public universities participation is compulsory). In 2011, 44 private universities out of 428 participated in the survey of the quality of new entrants, and in 2012 only 15.6% of all private universities participated in the monitoring of university performance.

11.3.2 Regulating Demand

Regulating demand at the entrance to the system is connected with the introduction of the unified state exam (hereinafter, USE). This exam assesses the level of knowledge of secondary school leavers in different subjects in accordance with the secondary school curriculum, which is determined by the national curriculum (it is largely based on the US test SAT). The USE was initiated by the World Bank in 2001, when it funded the pilot USE project in 16 regions of Russia (for more information on the World Bank's role in changing Russia's educational policy see (Gounko and Smale 2006). Since 2009, the USE has been the main tool of selection of new entrants for all universities. Today it is mandatory nationwide. When introducing the USE the state explained that these exams are the most effective and reliable means of selecting qualified school leavers and that the USE would give young people from provinces more chances to be admitted to leading universities, most of which are located in Moscow and St. Petersburg.

Researchers who studied the results of entrance tests for undergraduate programs in 13 countries could not find evidence that the introduction of tests increased the efficiency of the selection of new entrants (Edwards et al. 2012). There is evidence that the introduction of the USE has increased the affordability of higher education for students from low-income families. However, this is due primarily to the fact that new entrants are now allowed to send the results of the USE to more than one university (Andrushchak and Natkhov 2012). The systemic effects have yet to be analyzed, so it is too early to talk about achieving the goals that were set when introducing the USE.

At the same time, many stakeholders, mainly students and their families, as well as universities, are involved in the discussion of the negative effects of the introduction of the USE. The dissatisfaction of students and their parents is explained by the fact that they have to spend considerable time and money to prepare for the exam. The burgeoning private market for training for the tests is one of the effects of the introduction of national entrance tests in many countries (Edwards et al. 2012; Andrushchak and Natkhov 2012).

Universities are dissatisfied with the restriction of their freedom to select entrants. Before the introduction of the USE, they set their own entrance requirements, while today only a limited number of universities have the right to do so, and even then, only for a limited number of fields of study and in addition to the use of the USE results. The list of these universities is compiled annually by the government. In 2013, in addition to Russia's two major universities, Moscow State University and St. Petersburg State University, this list included seven universities (specializing mainly in languages). Another grievance is related to the inclusion of the average USE score of students admitted to the first year in the list of criteria by which the university's overall efficiency is assessed. It is assumed that this criterion helps to identify universities that attract the most gifted students, which indicates the quality and reputation of the university. It is clear, however, that the overall decline in the level of training of secondary school leavers, as evidenced by the results of the USE, is beyond influence of universities. It is notable that one of the most powerful arguments in support of the introduction of the USE was the desire to fight corruption that had become synonymous with the term "entrance exams."

The number of student places funded from the federal budget is allocated among state universities on a competitive basis. This takes into account the university's ability to provide quality academic services. However, this is only an official statement. In practice, the process of allocation of state-funded places is very opaque, is full of contradictions, and lends itself to strong administrative influence.

We have already mentioned that Russian higher education has the highest number of graduates in social sciences, business, and law among all OECD countries. In order to restore balance in the structure of higher education degrees, since 2004 the state has regulated the number of state-funded places in universities in these fields of study: over the last few years their number has decreased by 30%. At the same time, over the last 5 years, the number of state-funded places in engineering has increased by 9% (Abankina et al. 2012).

In 2013, a new model for the allocation of state-funded places was introduced, which aims to remove social sciences from the list of majors of engineering universities; to better regulate the allocation of state-funded places by levels of education (for example, to increase the number of state-funded places for graduate programs); and to take into account the needs of regional labor markets. First of all, this measure affected engineering universities, which in the 2000s, following the public's demand for social sciences, greatly expanded the offer of academic programs in this sphere. Of course, the first reaction of engineering universities was negative. However, as partial compensation, the state offered them increased tuition fees for students majoring in engineering.

11.3.3 Regulating Tuition Fees

In 2012, the state changed the enrolment-based formula of funding and established a new standard for calculating the cost of tuition of state-funded students in public

universities. The standard was determined based on the median of public universities' actual costs of training one state-funded student in 2012. Beginning from 2013, all public universities will receive from the federal budget a fixed amount of money, 60,200 rubles, adjusted for the areas of teaching, for the training of one student, regardless of previous actual costs. In 2012 the cost of training of one student in different public universities ranged from 40,000 to 182,000 rubles. Thus, there was an automatic increase in the cost of training funded by the state in universities in which these figures had been lower than the established standard (this is almost half of all universities). Here, the term "standard" means the minimum cost of training of one student. Universities can invest additional funds in training students as they see fit, using their extrabudgetary resources and income-generating activities.

With all the positive effects of this measure, universities also faced an unexpected restriction of their market behavior. The state linked the raising of the standards for training state-funded students with the requirement to raise tuition for fee-paying students, citing the responsibility of universities to ensure the equal quality of provided services and, as a consequence, the same costs for state-funded and paid places. Thus, universities were forced to determine the tuition cost, which did not always correspond to public demand. Considering the decline in families' expenses on higher education, it became a real problem.

The state program "(T)he Development of Education" for the period 2013–2020, developed by the Ministry of Education and Science and adopted in 2012, preserves the regulatory function of the state and also extends its influence on the behavior of other stakeholders. For example, it introduces the USE passing grade for new entrants claiming state-funded places, cuts the number of state-funded places in universities and differentiates universities on the basis of determining the level of programs which they can offer to students.

11.3.4 USE Passing Grade and the Reduction in the Number of State-Funded Places

Over the last decade the number of secondary school leavers has declined from 1,457,800 to 789,300, while the number of state-funded places in universities has remained almost unchanged: in 2000 it amounted to 586,800 places and in 2010 to 519,000 places (Institut statisticheskikh issledovanii i ekonomiki znanii GU-VShE 2012a). Thus, higher education has become accessible to practically everyone regardless of their academic competence. While most stakeholders support the idea of preserving the accessibility of higher education, the government has expressed its intention to restrict access to higher education by introducing a threshold of minimum test results which allows new entrants to qualify for state-funded places in universities and cutting the number of these places.

The society and universities themselves are raising their voice against it. Their argument is: higher education performs a socializing function which today has no alternative. In our view, universities have taken up an unconstructive, populist

position that significantly weakens their role and their ability to influence decision-making in this area. Despite the alarming increase in the number of students who are poorly prepared for training in traditional university programs, universities prefer to criticize the level of secondary school education and are in no rush to change their portfolio of programs offered or diversify the range of allowable educational trajectories that would take into account the capabilities, expectations, and needs of such students. This means that universities are not prepared to justify their right to retain the diverse student body and support it with their internal decisions. Thus, universities' unpreparedness for more rigid selection has less to do with the interests of students as their stakeholders and more to do with the internal interests of the institution: the preservation of the student body, the faculty, and the income. According to Russian experts, for a significant number of higher education institutions the consequence of this situation is an implicit "disengagement agreement" (Dobryakova and Froumin 2012) with students: "We pretend that we are teaching you, and you pretend that you are learning."

11.3.5 Differentiation Among Universities

The state has taken measures aimed at differentiating among higher education providers based on the levels of programs that they will be allowed to offer. Today, any Russian university (public or private) can apply for the opening of a master's program if it has the bachelor degree program in the relevant field of study and obtain a license for its implementation. The same is the case with programs for Ph.D. students. The new approach of the state concentrates on the training of master's and Ph.D. students in a limited number of leading universities. Accordingly, students as stakeholders face new challenges when choosing a place of training. Obviously, the granting of the privilege of opening graduate and postgraduate programs will lead to a significant reformatting of the work of most universities, to changes in their status and the patterns of their interaction with all stakeholders. Universities still do not recognize this threat because the criteria for selecting universities have not yet been announced.

It is clear that the regulatory role of the state as reflected in the aforementioned mechanisms affects competition between public and private universities in the higher education market. After the emergence of the private sector in higher education in 1992, public and private higher education institutions were linked, to a certain extent, by partnership relations. Private universities used public university premises and the teaching staff, and public universities considered private universities as a source of additional income for their teachers (Suspitsin 2005). However, for both sectors the main source of income was the same, namely, taxpayers' money. Therefore, the demographic and economic trends of the first decade of the twenty-first century have led to the shrinkage of the market and increased competition. During this period, the state created favorable nonmarket terms of budget funding for public universities and retained the number of state-funded places. This weakened qualitative competition in the market (Abankina et al. 2012).

11.4 Market Behavior of Higher Education Institutions: Commercialization of Research

The reduction of state funding energizes universities' nonbudget activities and forces universities to act as market entrepreneurs (Olsen 2007). International practice shows that one of the main areas for university entrepreneurship is the commercialization of research (Shattock 2009). To be successful in this area, a university must be able to demonstrate high-level scientific achievements that stakeholders would be interested in.

Historically (in Soviet times), in the Russian education system, the research and development (R&D) sector was developed independently of higher education. Except for a small number of universities with a strong research base, the overwhelming proportion of research was carried out by the institutes of the Russian Academy of Sciences (RAS). The traditional forms of interaction between universities and the institutes of the Academy of Sciences were limited in scope. These included staff mobility, joint research projects, scientific laboratories at universities, and conversely, university departments at scientific institutions.

In these forms of interaction, universities focused on teaching, and the RAS institutes focused on research. The main difficulty in their interaction is the fact that these two groups of organizations are supervised by different departments of the government. Higher education institutions are supervised by the Ministry of Education and Science, while academic institutions are within the RAS system. This makes it difficult to manage and finance joint projects. Experts also note that the main motivation for the RAS institutes in their cooperation with universities is the selection of the best students and their subsequent employment in the RAS system (Dezhina and Graham 2009), which makes cooperation rather limited.

In this situation it was obvious that without the support of its main stakeholder, the state, universities would hardly be able to play a significant role in the R&D market. In the second half of the 2000s, when the motives of the state policy in the sphere of research began to be determined by the worldwide trend to strengthen the role of research universities as the key element of national research systems, the situation changed. The advantages of universities as places of integration of teaching and research were becoming more obvious (Salmi 2009). The Russian state began to show a strong interest in the development of universities' research potential.

Among the largest projects initiated by the Russian government in this period was the creation of a group of research universities and the adoption of the federal target program "Research and Teaching Staff for Innovative Russia" for 2009–2013. The goals set in these initiatives included reaching global scientific leadership in selected priority areas of development and creating a new quality of university education in the scientific environment.

It is interesting to note that state's efforts to support an implementation of R&D projects at universities have not led to significant changes in or redistribution of roles between universities and the RAS institutes in this area. Despite the decreasing number of research institutes in the 2000–2010 period and the growing number of universities conducting R&D, the share of the latter in the research sector

has not changed. In 2010 the share of research institutes equaled 52.7% (in 2000: 53.1%), the share of universities equaled 14.8% (in 2000: 14.3%). Also, there was a simultaneous increase in their share of R&D expenditure: for RAS institutes: from 24.4% in 2000 to 31% in 2010, for universities: from 4.5 to 8.4% over the same period (Institut statisticheskikh issledovanii i ekonomiki znanii GU-VShE 2012b).

However, today there is a certain wariness in the relations between universities and the RAS. New customers have appeared in the academic job market. These are universities receiving additional state resources for their development. They have begun to seek out and attract employees who can ensure high-level research performance, first of all, employees of the RAS. Universities have enhanced their presence in the technology platforms, which the state sees as a mechanism for determining research priorities. They are also able to significantly upgrade their research infrastructure. Periodically, the Ministry of Education and Science and universities initiated discussions about the ineffectiveness of the organization of science as a system of academic institutes, putting forward proposals to merge academic institutes and universities. The RAS has its own arguments: namely, its scientific performance, old academic traditions, and the numerous and sufficiently independent expert community. All this explains why there is certain distance between universities and the academic institutes.

In the first decade of the twenty-first century the state had another motive for developing university research potential that is linked to the involvement of business in the financing of R&D. The practice of most developed countries shows that universities are often regarded by companies as quite attractive partners for the implementation of R&D projects, and university–industry links are regarded as a key element of the national innovation system (Maassen and Stensaker 2011; Mora et al. 2010). The experience of these countries shows that the intensity and scale of the development of various horizontal links between universities and industry is largely determined by the position and participation of the state, which forms the triple helix of university–industry–government relations (Leydesdorff and Etzkowitz 1998).

An important mechanism for encouraging interaction between universities and industry in the research area was the initiation of programs under which state funds were allocated to businesses on the condition that they involve Russian universities in the implementation of research projects and cofinance these projects. In particular, we can mention the Government Decree No. 218 (2010) aimed at supporting the development of cooperation between Russian universities and organizations implementing complex projects to create high-tech manufacturing facilities and the order of the Russian Federation (RF) President (2011) to involve universities in the development of programs of innovative development of Russia's largest state-owned corporations.

It is still difficult to talk about the systemic effects of these initiatives. In 2010, the share of universities in the amount of R&D carried out in Russia grew to 8.4% (from 7.1% in 2009). A number of experts link the growth of this figure with the implementation of the initiatives (Russian Association of Managers 2011). But in our opinion, there is not enough statistical evidence of changes in the behavior of universities and industry or growth of their mutual interest, which was the main goal of the state.

The practice of the implementation of joint projects within the framework of the programs initiated by the government has revealed many barriers to interaction. It was difficult for universities to demonstrate their readiness; their transparency and predictability as a partner in the implementation of R&D projects; their ability to be integrated into ongoing processes; and their understanding of the needs and objectives of the business partner and its technologies, deadlines, and results.

Many businesses were under pressure from the federal and regional authorities coercing them to participate in and cofinance joint projects involving universities. Therefore, their goal was to minimize the risks and costs of incorporating universities into their technological processes. To achieve this goal, businesses searched for ways to influence the ways universities managed their research and tried to participate in decision-making on the priorities of the university's activities and controlling the resource allocation. At present, these possibilities are limited by university fears and their unwillingness to broadly involve companies in their internal management processes, which, in their opinion, may lead to the loss of control over their activities. The state is not taking any further measures to create appropriate conditions for businesses to control the resources they contribute, relying on the entrepreneurial behavior of universities in the resolution of emerging contradictions.

The creation of appropriate conditions for the development of universities' entrepreneurial behavior in the research area has quite a long and controversial history. In 2006, the government adopted the Federal Law "On Autonomous Institutions" (Federal Law No. 74). It helped to implement a new organizational form that ensures greater autonomy and transparency of university activities. Despite the fact that the status of an autonomous institution provides more freedom with respect to spending money earned by a university, universities reacted to this initiative rather warily and began to predict the hidden risks of increased autonomy and the accountability associated with it.

One of the most serious causes for doubt was the fear of loss of the property that is under the university's management. Today the state (the founder) has the right to exempt the university's property which is used either inefficiently or inappropriately. However, this practice is not widespread. The transformation of universities into autonomous institutions and the selection of particularly valuable property bring to the fore new risks, thus exposing the contradictions of the current situation (Klyachko 2009). Tensions rose when the Presidential Decree of May 7, 2012, launched the monitoring of the effectiveness of university activities and the development of measures of rehabilitation for inefficient institutions that had "lost touch" with the labor market.

It should be noted that the state is consistently trying to create conditions encouraging the involvement of universities' intellectual capital in economic activities. Public universities have the right to be founders of commercial companies whose business is the practical implementation of the results of intellectual work, the exclusive rights to which belong to these universities. In this case, the right to use intellectual property is the university's contribution to the charter capital of commercial companies.

Universities can also involve other persons as founders of a business entity if the share of the university is more than 25% of the charter capital or more than one-third of the charter capital of a limited liability company. These universities manage their stakes in the charter capital of business entities as participants in accordance with the Russian Federation civil legislation. Heads of universities execute the rights of members of business entities on behalf of universities.

Between 2009 and 2012, more than 400 small innovation enterprises were set up. It appeared to be necessary to enhance universities' possibilities of creating such enterprises and managing them. But this form of university entrepreneurship is still largely guided by the old (Soviet) motivation: universities continue to rely on the government's "top-to-bottom" leverage, not the economic motivation from the bottom, giving greater importance to quantitative rather than qualitative results and paying relatively little attention to profitability as a criterion of success (Dezhina and Graham 2009). Thus, this kind of work is still far from being considered a well-established and important economic phenomenon, and the role of universities is too insignificant to be taken into account by other players in the R&D market.

11.5 New Aspects of the Higher Education Policy Agenda

The dynamics of public expenditure on education shows that between 2001 and 2010, higher education in Russia received increased attention of the government: public expenditure on higher education as a percentage of the gross domestic product (GDP) rose from 0.3% in 2000 to 0.8% in 2011. In 2010, the volume of budget financing of higher education amounted to 302 billion rubles, the volume of non-budgetary financing reached 257 billion rubles (Institut statisticheskikh issledovanii i ekonomiki znanii GU-VShE 2012a).

The authors' analysis of the federal targeted programs of the development of education for 2001–2005 and 2006–2010, and the priority national project "Education" shows that in that period the expectations of the state were based on the fact that universities would be able to provide high quality education, meeting changing public demands and the future development of Russian society and the economy. The two main problems that have to be solved to achieve this goal are the unacceptable quality of higher education and the impact of the discrepancy between the results achieved by universities and the goals of the country's economic development.

The problem of poor quality in higher education is one of the most actively discussed aspects of Russia's higher education. According to the Public Opinion Foundation, in 2012, only 12% of respondents thought that the quality of Russian higher education was good. Surveys of employers show that two-third of them are not satisfied with the quality of university graduates (Ministry of Education and Science of Russian Federation 2010). The state regards the absence of Russian universities in international rankings as direct evidence of their lack of competitiveness in the international market.

The problem of discrepancy between universities' activities and the needs of the economy has its objective and subjective reasons. The objective reasons are related to the noninvolvement of employers and business in determining the content of higher education programs and their unpreparedness to forecast their need for skilled employees. The subjective reasons lie in the blurred boundaries of departmental responsibilities with regard to forecasting the needs of the economy in professional personnel.

"The Law on Education," adopted in 2012, defines higher education as a type of education aimed at acquiring competences needed to conduct *professional* activities in a certain area and/or work in a particular profession or occupation.

In the Soviet Union, there was traditionally a close link between universities and the labor market. In fact, all universities were to some extent sectoral or industry-specific. They received support from employers; their students did practical training on assigned enterprises and were then employed by enterprises. In the 1990s, universities were no longer concerned about their connections with the labor market. Training employees for industries receded into the background against the backdrop of the feverish demand for higher education in social sciences majors. However, the stabilization of the economy and the development of industries in the 2000s made the issues of interaction between employers and universities preparing personnel for them important again.

Experience shows that interaction between employers is not systematic and is largely determined by situational factors. In the extractive sectors of the economy as well as in trade and services, the position of employers in relation to higher education is already known. In some cases one can observe the joint work of business entities and universities on the content and the process of training. In the absence of resources, whole sectors of the economy (for example, consumer goods manufacturing, machine building) are unable to influence the training of personnel both in terms of setting goals for universities and in terms of determining the real demand for graduates and opportunities for their employment.

The government shows its willingness to share with employers some of its authority to coordinate the higher education system, attracting them to the sphere of higher education and trying to interest them in cooperating with universities. Examples of such initiatives include a new procedure for the formation of federal state educational standards based on professional standards, attempts to create a system of public accreditation, and centers of certification of competences. The RF President gave governmental agencies, the associations of employers (including the Russian Union of Industrialists and Entrepreneurs), and state corporations the task of preparing and adopting about 800 professional standards within a short time.

The procedure for the preparation of federal state educational standards was initiated by the Ministry of Education and Science long before professional standards had been developed in most industries. This did not allow employers to influence the content of the training of skilled personnel. Therefore, today's generation of educational standards in most cases is rather a reflection of the possibilities and ambitions of the higher education system than the real needs of the economy (Ministry of Education and Science of Russian Federation 2010). The lack of professional

standards also hinders the creation of a system of public accreditation of higher education programs.

Considering the aforementioned problems, the main mechanisms of state coordination in higher education are the following: (1) the identification and support, on a competitive basis, of leading universities, in the growth areas of the new quality of education, and (2) the optimization of the network of universities, the identification, and subsequent reorganization of the universities that do not meet the needs of the economy.

The first mechanism was designed in line with the global trend toward the selection of "centers of excellence" (Salmi 2009). This implies the selection of leading universities within the higher education system and changing the approach to the allocation of resources in their favor.

As part of the first mechanism, 39 universities were given the status of "national,", "federal," and "national research" universities. This group of universities receives targeted financial support from the state in the framework of additional funding of university development programs: beginning from 2010, 30 billion rubles each year. Also, based on the results of various contests, these universities accumulate up to 60% of the funds allocated for the development of research activities of the whole system of higher education.

It should be noted that the status of "national research universities" was awarded on a competitive basis. Federal universities were established by the RF President. Other forms of status were determined by the state. This caused a mixed reaction from other universities to the selection of this group and the redistribution of resources in its favor. Most of the questions are related to the apparent heterogeneity of the group of leading universities: it included recognized leaders as well as universities that had never occupied the top ranks of Russian ratings and had never demonstrated outstanding scientific achievement.

For example, if the total number of publications during 10 years (2001–2011) in the Web of Science is used as the indicator of a university's research potential, this group includes universities with more than 4000 publications as well as those with fewer than 100 publications. Also controversial are the results of these universities' work. For example, the formation of the network of federal universities was started in 2006. It was assumed that these universities would be capable of carrying out educational and research projects for large regions (the Urals, South Russia, the Far East, Siberia, and North Caucasus). However, their activities never went beyond their provinces.

In the framework of the second mechanism (i.e., restructuring), during the last 5 years, more than 100 university branches have been closed; 63 universities have been reorganized through various procedures, including their merger with stronger institutions. This process continues today, primarily affecting universities that were created in Soviet times for the solution of particular problems of the state and that found themselves in a difficult position after the change of the national economic model. A number of Russian experts believe that the pooling of universities' resources in the course of integration will improve the quality of education, and the expansion of the range of educational programs will give a consolidated university a more stable position in the higher education market (Abankina et al. 2012).

However, there are other opinions. The state plays a key role in this process. But its decisions on reorganization are not based on a solid project basis and professional expertise. This increases the risks of inefficiency and unattainability of the expected systemic effects. As far as the reaction of universities involved in reorganization is concerned, it should be noted that their opinion is ignored and has no effect on such decisions. Moreover, there were cases of open discontent with such decisions.

To identify universities that do not meet the challenges facing the system and in order to strengthen their accountability, in 2012 the Ministry of Education and Science initiated the monitoring of university performance. The monitoring was based on five criteria: the USE average score of the students enrolled in state-funded places; the volume of R&D expenditure per faculty member; the proportion of foreign students; the university's income from all sources per faculty member; and the total area of classrooms and laboratories per student. Since the publication of the lists of universities that were classified as ineffective based on the results of the monitoring, heated debate over the initiative has not ceased.

Can this monitoring assess all the effects that higher education has on its environment and society as a whole? Can this list of criteria be used to identify universities that do not meet the goals of the market economy? Should all universities be evaluated on the basis of the same set of indicators that do not always take into account their special features? Why were universities that have a valid accreditation (which means they are recognized by the state as meeting the requirements for the provision of services in the field of higher education) found to be ineffective? Why were only leading universities involved in discussing the criteria and not the whole professional community? The absence of clear answers to these questions and the lack of information caused distrust on the part of universities to the goals of this initiative, to its implementation, and to its results. Under pressure from universities and public criticism, the Ministry of Education and Science promised to revise the list of the criteria and involve a wider range of experts in its discussion.

The two main vectors of higher educational policy discussed above show that the state develops its relations with universities on the basis of vertical differentiation, selecting the groups of best universities and "outsiders." This is typical of many systems that have joined the race to create top-level universities (van Vaught 2009; Salmi 2009). The analysis of the documents reflecting the state's educational policy (in particular, the state program "The Development of Education" for the period 2013–2020) shows that the state has clearly formulated its position with respect to these groups of universities.

The state expects the first group of universities to turn into high-level (ideally, globally top-level) universities. Today this group of universities, which now have the status of "leading universities," is composed of only 39 institutions (less than 4% of the total number of universities with slightly more than 10% of the total enrolment in higher education in 2011). Adopted in 2012, the program of development of this group of universities (known as a set of measures aimed at implementing the order of the RF President to ensure, by 2020, the presence of at least 5 Russian universities in the list of top 100 universities in leading international ratings) shows that the state's

attention and support will be even more concentrated, and even within this small group not all universities will be the focus of the state's attention.

Based on the results of the monitoring of the effectiveness of higher education institutions conducted in 2012, the group of the "outsiders" has included 136 universities (about 20% of the total number of higher education institutions). The fate of these universities is also predetermined by the state. They will be reorganized or liquidated. A corresponding decision, in accordance with the plans of the Ministry of Education and Science, will be taken in 2013.

For most of the universities that are in the middle of the spectrum and form the basis of the higher education system, relations with the state continue to be, to put it mildly, unclear. The state expects universities to be proactive and find their place in the system. There is a strict framework within which universities are allowed to maneuver. According to the state program "The Development of Education" for the period 2013–2020, the future institutional landscape of the Russian higher education should consist of: (a) leading research universities (40–60 institutions), which must act as the engines of innovation economy; (b) supportive universities of regional economic systems; and (c) universities providing extensive training for bachelor's degrees. However, if we take into account other stakeholders' expectations and their impact on the system, we will see that the institutional landscape of the Russian higher education should be more diverse.

11.6 Institutional Differentiation as the Basis for the Renewal of the Social Contract

All universities are organizations that use similar resources, attract similar groups of clients, produce similar products and services, and operate in the framework of a unified state educational policy. However, universities respond differently to changing circumstances because of specific institutional characteristics and the adoption of particular management decisions (Olsen 2007). The different approaches of universities to identifying stakeholders, classifying them according to their relative importance and establishing working relations with stakeholders (Jongbloed et al. 2008) determine different models of university organization. In the wide gamut of relations between universities and stakeholders, one can and should see a certain order and consistency associated with the importance of various stakeholders for the university, the volume of resources that the stakeholders can offer, as well as the requirements and procedures for access to these resources.

Today, in Russian higher education, the state is the undisputed resource leader. The resources allocated by the government, however large, are of course, limited. The range of universities that have access to these resources is also limited. The state gives priority to research universities that are capable of being internationally competitive. Development in the paradigm of global research competitiveness should be viewed as the formation within the higher education system of the group of research universities. For the rest of the universities, resource expectations shift

toward other stakeholders who can articulate other (different from the claim to global leadership in research) expectations and interests. These interests can include the staffing and scientific support of large-scale geopolitical and territorial projects of social and economic development, maintaining a high qualitative level of research and education in particular fields of science, and finally, contributing to the development of strategic sectors of the economy. A university implementing its mission in this dominant paradigm can be called a "systems integrator." Here, by "systems" we mean what we described above, that is, social and economic complexes of large territories, science, and economic sectors.

But even in this model of development there may not be sufficient place for all universities. This model is also affected by resource constraints. Therefore, we can consider as the third mechanism of differentiation the ability of a university to offer and implement a universal mission at the regional level. The goals of socioeconomic development of regions and the needs of regional labor markets for skilled employees offer a challenge to the system of higher education and prerequisites for resource sharing between regional stakeholders and the higher education system. The ability of a university to offer services needed for regional socioeconomic development creates a new sphere for the university's activities, which involves regional authorities, regional businesses, students, and their parents. It can be argued that the composition and quality of the aforementioned services require the involvement of the university in research (mostly, applied research). This university can be seen as a kind of "regional integrator," which plays a central role in the consolidation of the intellectual capital for the purpose of achieving the goals of the socioeconomic development of the region.

The formation of another model of university organization and development is related to the university's rejection of the obligatory nature of research work and its focus on undergraduate programs. As a result, a localized educational mission of the university is formed that suggests closer ties with the local community and local labor market, which become the university's main stakeholders. The sphere of the university's activities narrows. A university with this model of organization and development can be figuratively described as a "local personnel designer."

Thus, multiple modes of interaction between universities, the variety of stakeholders and their hierarchy is a prerequisite for the formation of different models of development and organization of university work. Different combinations of these models will determine a more differentiated institutional landscape of the Russian higher education in the future. (Knyazev and Drantusova 2013).

11.7 Conclusions

The expectations of the three main groups of stakeholders involved in the coordination of Russia's higher education—the state, the market, and the academic oligarchy—determine the range of services to be provided by higher education and requirements for their quality. Stakeholders associate the latter with the expansion of their participation in decision-making, control over the use of allocated resources,

and greater accountability of higher education. Together, this forms the basis of interaction of higher education with its external environment or the social contract.

For *the state* the most important driving force for its participation in coordination is its responsibility for higher education declared in the Law on Education. One of the priorities of the state policy of developing higher education in Russia is maintaining the balance between ensuring its accessibility and preserving its quality and regulating supply and demand. This dilemma is present in almost all of the RF government's policy documents on higher education.

We have already noted that the main reason for changing the state's attitude toward universities in the period under review is the processes caused by the neoliberal reform associated with the budgeting sector. This change is seen in the transition from the state's funding of universities to paying for services that the state orders. The state aims to develop a system of relations with other stakeholders in which those who profit from the purchase of universities' services and products must pay for them. Of course, the prerequisite is to preserve the predictability and controllability of the higher education system as well as its transparency and accountability. Despite the fact that the state, as a major stakeholder, tries to shift the responsibility for higher education from itself to the beneficiaries of university services, it retains the right to determine the scope of university activities and control them. But, of course, the lack of the ability to control universities does not encourage other stakeholders' commitment.

The interests of *the market* are well characterized by students' ability to choose between different (public and private) providers of higher education meeting a wide range of demands. The second side of market expectations is associated, as in other countries, with well-developed higher education systems, with a permanent increase in the importance of innovation products. Of course, market forces are interested in the potential benefits of interaction with the higher education system while minimizing their costs and ensuring efficiency in the use of resources. However, as our analysis shows, the impact of market mechanisms of coordination on higher education is limited by the state through the introduction of artificial protective barriers or preferences for certain groups of players.

The *academic oligarchy* today is preoccupied with diversifying the sources of funding, understanding that this will entail accountability to the increasing number of stakeholders. But despite the widening autonomy and the opportunities associated with it, the oligarchy seeks to preserve the state as the main customer for its services, as it associates with the state, less risk to the stability of its position. Changes in the behavior of this stakeholder are explained by the absence of necessity for professional expertise shown by other stakeholders, especially the state. As a result, the oligarchy is detached from making key decisions and has less impact on the coordination of higher education. This leads to the fact that most universities are in a situation of uncertainty when the rules of the game may suddenly change at any time. Institutional confusion, in turn, generates disappointment, criticism, and sometimes an atmosphere of crisis (Olsen 2007), and undermines trust in the higher education system, which is the key aspect of the social contract between higher education and its wider environment.

In his comparative study of higher education systems, Clark applied the triangle of coordination to the then Soviet higher education system and counted Russia as one of the countries in which the state is the main of the three drivers of the systemic and institutional dynamics of higher education (Clark 1983). It can be argued that Clark's opinion is still relevant, which emphasizes the importance of this stakeholder's decisions for higher education at the present stage.

In our view, the state's current position with respect to higher education, which suggests a simplified vertical differentiation among universities, cannot be the basis for a new social contract. Each university, due to its unique features, has a different combination of relations with its external environment and attaches different degrees of importance to each of the different types of connections, which determines the unique nature of the university's social contract with its environment. Therefore, social contracts are as diverse as universities themselves are, and they are in a constant process of change (Trow 1996). This is confirmed by the current state of Russia's higher education where, in our opinion, there are at least four different models of university development and organization. This means we should talk about the horizontally differentiated system of higher education and a variety of social contracts. This approach can create a qualitatively different basis for better understanding as well as reconciling the interests of higher education and its stakeholders.

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